MECCANO (AMERICA) - MECCANO MORECRAFT 1

USA

NAME	MECCANO MORECRAFT
TYPE	Constructional Engineering
HOLE DIAMETER	4.3mm HOLE SPACING 12.7mm (½")
SETS IN SYSTEM	Total of 7 : Beginner, Craftsman, Designer, Designer Special, Engineer, Fellow, Graduate. These were identified by letters – B, C, D, DS, E, F, G. Other Meccano items – Microscopes, Meccano Brik, Meccano Foundry, Detective Kit, Telescope
DIFFERENT PARTS	64
COLOUR	Black, red and nickel plated
FIXING METHOD	Nut and Bolt (8-32)
MOTORS	2 Electric
PERIOD	1934 to 1936/7
MANUFACTURER	Meccano Company of America Inc., New Haven, Connecticut, USA Distributors – Skipper Toy Co. Inc., Branford, Connecticut, USA
COMMENTS	This was the last of the A.C Gilbert Co. dominated Meccano Set systems. In 1937 the system was sold to the Skipper Toy Co. Inc (see MODERN MORECRAFT). Only a few parts of this system are compatible with Meccano. It first appears in the 1935 catalogues but is not in 1937 catalogues. Patent was dated 1935. The Designer Special set was the Designer set with the addition of the M1 motor. All the larger sets also had this motor. The manual also included four large 'blueprints'. These were large double sided sheets of paper. Each side was divided into quarters (approx. the size of the manual, which had constructional details and part lists for all models from Designer upwards.
OTHER SYSTEMS	11/290, 12/331, 13/357, 16/432
NEWSLETTER	
MATERIAL SUPPLIED BY	F. Beadle, Kendrick Bisset and Orion DreamDancer

MECCANO (AMERICA) - MECCANO MORECRAFT 2

There was just one manual, which included models for all the sets.

MECCANO MORECRAFT SEPARATE PARTS

No.	Description
C-90-X	Connector 6 way
C-I80-Z	" 8 "
C-I35-ZL	" 5 "
C-0	" 2 "
C-I35-ZR	" 5 "
C-I80-D	" flanged 5x3
C-I80-DS	" " 3x3
C-360	" " 5x3xI
P-4	Base plate with legs
A-0	Angle member
A-I	" " straight short
A-2	" " " med.
A-3	" " " long
A-4	" " " I7 hole
ST-5	Perforated strip 5 holes
ST-7	" " 7 "
ST-II	" " II "
ST-2I	" " 2I "
P-02	Panel long rectangle
P-II	" square
P-I2	" short rectangle
P-I3	" plain long rectangle
PT-II	" triangular shape
W	Washer
N-I	Nut square
N-2	Screw bolt round head
SN	Snap rivet
AF	Crane hook wire type
K	Key for clip fixing wheels
S-4	Collar similar D. bracket
B-I	Angle bracket IxI holes
B-2	" " 4 holes each
B-3	Motor support bracket 5 hole
CR	Eccentric 3 hole
WO	Pulley for motor
WI	Sheave pulley no boss
W2	Pulley grooved 4 holes
PD-I	Pierced disc 8 holes
W-25	Pulley grooved no holes
W-3	" 3" (75mm)
PD-2	Turret plate
G-3	36 tooth gear wheel
G-2	I8 " " "
G-I	Pinion
SP	Spring
WG	Worm gear
--	Screwdriver bent rod type
--	Wrench open one end
--	Rivet extractor bent rod type
CH-I	Short crank handle
CH-2	Long crank "
R-0	Axle rod 2 I/8" (54mm)
R-I	" " 2 7/8" (73mm)
R-2	" " 5" (I27mm)
R-3	" " 6½" (I65mm)
R-4	" " 8½" (2I6mm)
R-I5	" " 4" (IOImm)
C-G	Graduate size wooden cabinet
D-I	2" (50mm) Metal drawer deep
D-½	I" (25mm) " " shallow
M-I	IIOv A.C. induction motor
M-2	Universal motor

OTHER NOTES:

The system had a total of 62 parts including two motors.

Three parts, all working tools, carried no numbers.

Most of the general parts bear a close resemblance to Erector parts, including the gears etc..

List compiled by F.A.Beadle

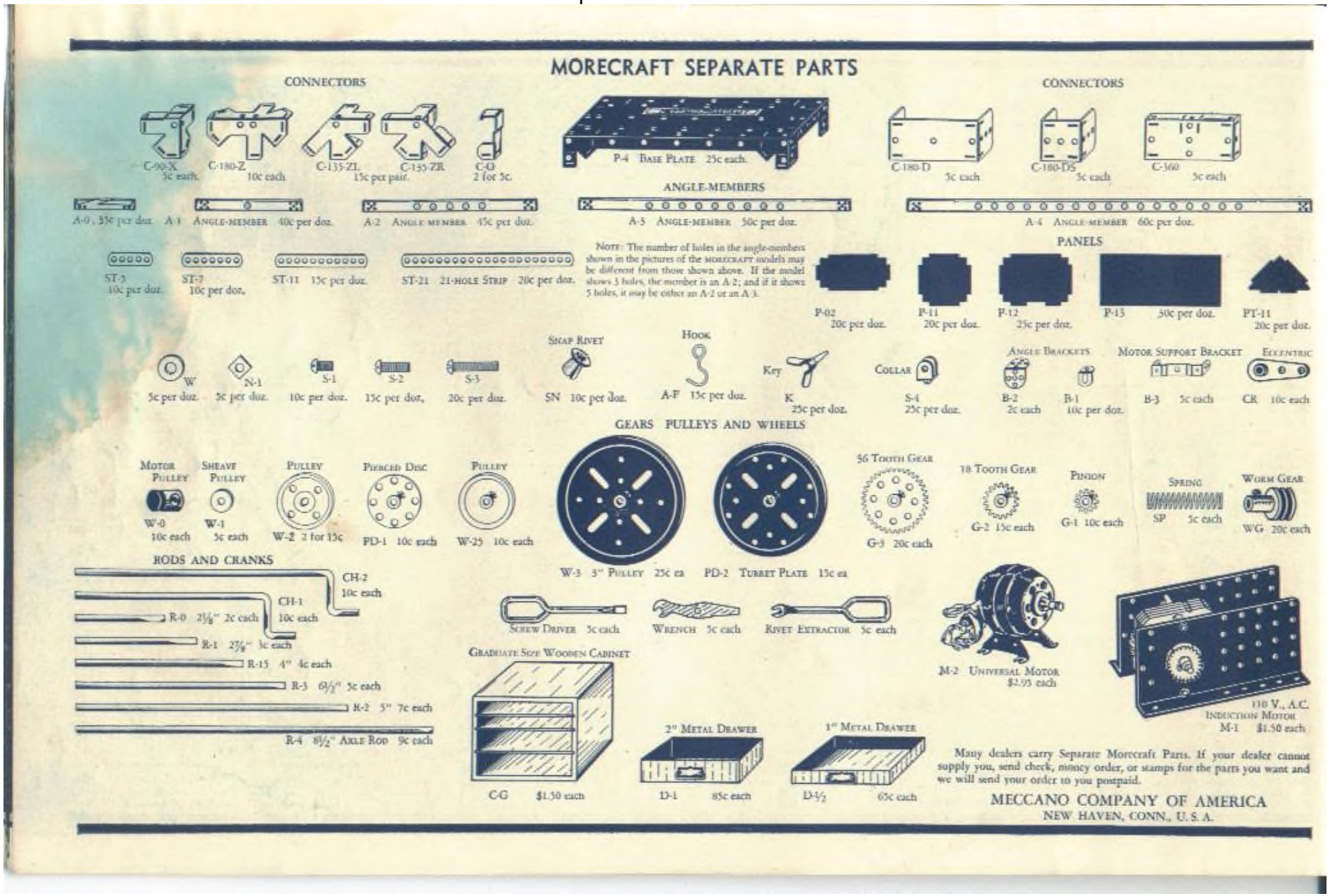
OTHER NOTES:

The parts named above have been given extra descriptive wording for identification,for terms of actual list refer to Morecraft list.

The system appears to have its own individual parts, which apart from the few strips, similar to Erector strips, the system does not resemble any other of similar type and period systems.

MECCANO (AMERICA) - MECCANO MORECRAFT 4a

The parts from the manual



MORECRAFT CONSTRUCTION DETAILS

FIG. 1

FIG. 1 shows a C-90-X connected to a single angle-member.

FIG. 2

FIG. 2 shows a second angle-member connected at a 90° angle to the first angle-member.

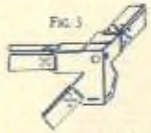


FIG. 3

FIG. 3 shows a third angle-member connected to the same connector at an angle of 45° to the first angle-member.

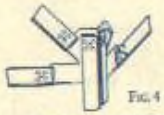


FIG. 4

FIG. 4 shows a fourth angle-member *reverse connected* to the connector C-90-X. This is a detail found in a large number of the MORECRAFT models.

FIG. 5

FIG. 5 shows two angle-members connected to a straight-angle connector C-180-Z. This type of connector is used whenever it is desired to make a long structure. The additional slots of the connector provide for bracing as shown in FIG. 6.

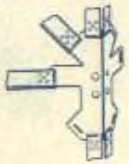


FIG. 6.

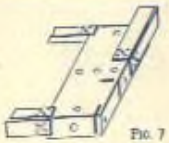


FIG. 7

FIG. 7 shows a *boom end*, C-360. This connector as shown permits connecting angle-members at right angles to the boom.

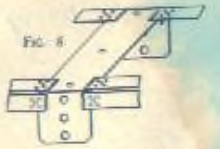


FIG. 8

FIG. 8 shows a *double straight angle connector*, C-180-D, as used to extend the length of a double boom. A similar connector, the C-180-DS, (see MORECRAFT PARTS) is used the same as the connector shown here.

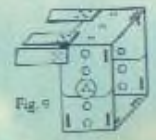


FIG. 9

FIG. 9 shows the use of the C-180-D connector as the pivoted end of a boom. The lower and upper connectors may be pivoted by the *snap rivets* shown or by a rod or bolted as described in FIG. 26.

FIG. 10

FIG. 10 shows the use of A-O'S to connect two C-180-D's. Other connections may be similarly connected. See FIG. 11

FIG. 11.

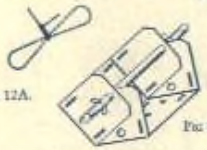


FIG. 12A.

FIG. 12.

FIG. 12 shows how to make a clam-shell-bucket for use with your derricks, etc., using two C-180-D's. The end of the hoist line may be tied as shown in FIG. 12A and one loop slipped over each end of the rod.

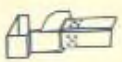


FIG. 13

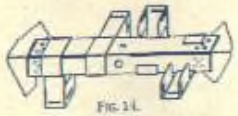


FIG. 14.

FIG. 13 shows the C-O, which is the most useful MORECRAFT connector. FIG. 14 shows a C-O in each of four positions on an angle-member to permit the attachment of an angle-member in each of four directions. The end C-O's prevent the angle-member upon which they are mounted, being detached. FIG. 13 shows how it is possible to locate a shaft rod in any desired position regardless of hole spacings.

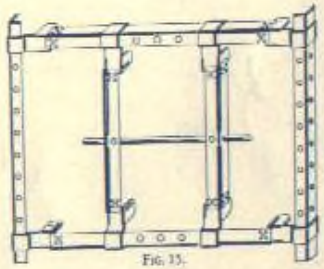


FIG. 15.

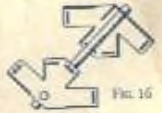


FIG. 16

FIG. 16A

FIGS. 16 and 16A show how to form the hub used in the WHIRLIGIG and FLOATING REEL models both with the BEGINNER SIZE. Put a rod through the holes in the tops of a pair of C-135-Z connectors. Rotate them into the position shown in FIG. 16. Then force them together as shown in FIG. 16A. Four angle members may be connected to the two connectors.

FIG. 17

FIG. 17 and FIG. 17A are plan and side views, respectively, of the arrangement for connecting the front axle pivot in the LUMBER TRUCK and WAGON models for the BEGINNER SIZE. The lower end of the rod is inserted between the axle rod and the angle-member of the front truck.

FIG. 17A

FIG. 18

FIG. 18 shows how to connect the upper end of the pivot rod of the model of the STIFF-LEGGED DERRICK shown for the BEGINNER SIZE. An A-O is connected to the corner of the base plate, P-4, under the A-O shown and the lower end of the rod passes between its ends. A wheel should be placed on the rod over each C-O.

FIG. 19

FIG. 19A

FIGS. 19 and 19A show the use of the MORECRAFT Key K, to fasten a MORECRAFT wheel W-2, to a rod. Place the key upon the rod where it is desired to have the wheel, then slide the wheel over the tongue of the key until it is held firmly in position.

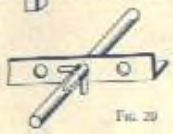


FIG. 20

FIG. 20 shows the use of a key to limit the rotation of a rod lengthwise yet permit it to rotate freely.

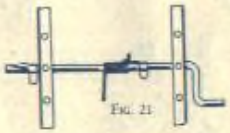


FIG. 21

FIG. 21 shows how to use a key to fasten the end of a string to wind it upon a crank, CH.

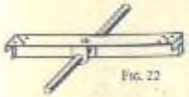


FIG. 22

FIG. 22 shows how to fasten an angle-member to a shaft rod. The screw of a collar is removed and the rod is inserted through the collar and one of a pair of holes of an angle-member. Then the screw is inserted through the other hole in the angle-member and tightened to hold the member in the desired position. A connector may be similarly secured. An example of this use is the HAND CAR built with the DESIGNER SIZE.

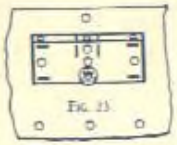


FIG. 23

FIG. 23 shows how to use the snap rivet. The pieces to be joined are placed with holes in alignment and the rivet is inserted with thumb pressure. Use of a single rivet permits a swivel action to be obtained.

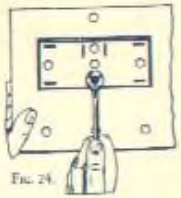


FIG. 24.

FIG. 24 shows the use of the HANDY RIVET EXTRACTOR to remove the rivets

After use snap rivets may become compressed and thus lose their tension. To remedy this, insert the prong of the rivet extractor between the slot portions of the rivet and spread them open as shown in FIG. 25

To lock two nuts in place put them upon a bolt inserted through holes in the members to be joined and turn in opposite directions as shown by the arrows in FIG. 26. This may be done by the use of the two wrenches furnished with all MORECRAFT SETS supplied with nuts and bolts.

FIG. 26.

FIG. 27

FIG. 28

FIG. 29

FIG. 30

FIG. 31

The above FIGS. show how to use the MORECRAFT PANEL INSERT. The corners are to be placed on top of the connectors and the sides are to be below the angle-members. First, place the panel shown in FIG. 27, with the assembly shown in FIG. 28, as shown in FIG. 29, then add the parts shown in FIG. 30, and, last, complete by connecting the left-hand corners with an angle member.

MECCANO (AMERICA) – MECCANO MORECRAFT 5a

The introduction page from the manual

MECCANO-MORECRAFT

"The toy that grows with the boy"

Do you like to make models of things you have seen? Enjoy finding out the Hows and Whys? Want to build brand'new buildings?

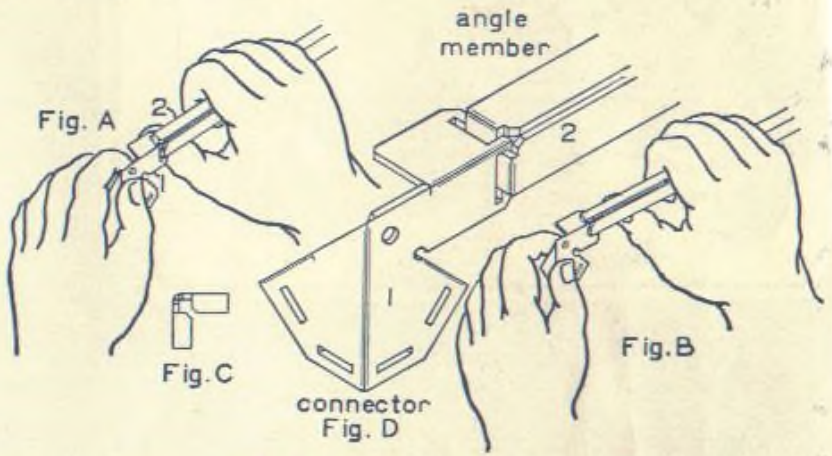
The **MECCANO-MORECRAFT** outfit you now have gives you a chance to do all this and more, too; for **MORECRAFT**, in magic manner, equips you to do your own reproducing, inventing, and creating. Want to start right away? Good! Here's how to do it:

*FIRST: Get acquainted with the new **MORECRAFT** BOLTLESS JOINT. Its business is to join parts without the use of nuts, bolts, rivets, nails, or rods. Try attaching and detaching the angle members or girders to the different connections or gussets; and learn how to adjust the ends of the angle-member to form a perfect joint. The illustration to the right shows you how. You will find yourself putting **MORECRAFT** together and taking it apart in an astonishingly short time. In the smaller sets of **MECCANO-MORECRAFT**, there are no nuts and bolts at all; yet you can build all the models shown for these sets in the MANUAL OF INSTRUCTIONS and many others you will think of yourself. With the larger sets, even, you will find you need very few nuts and bolts. Notice that the individual **MORECRAFT** joints are designed to be slightly flexible but that the completed structure is surprisingly rigid and strong.

SECOND: Study the pictures of the parts and the "CONSTRUCTION DETAILS" at the end of this manual. Engineers, Architects, and Educators all agree that the careful planning of **MORECRAFT parts allows a larger number of different combinations with a smaller number of parts, and permits diagonal bracing, etc. making **MECCANO-MORECRAFT** the ideal construction toy.

***THIRD: Select a model to build, beginning with a simple one. You will find that there is an endless store of enjoyment for **MECCANO-MORECRAFT** builders whether they be boys or girls, young or old. The four-year-old, too young to build from pictures, will connect pieces here and there and discover for himself the principles of structural design. You can build readily, using model pictures in the manual, real models, or your imagination. Grown up boys particularly enjoy building "easy-to-put-together, quick-to-get-apart" structures to support complicated motor driven mechanisms.

****FOURTH: Select your parts and start to build. The manual helps you, in building smaller models, by giving you, near each picture, a list of parts required. For the larger models, a blueprint is provided, in addition to the picture in the manual. This blueprint also includes a "BILL OF MATERIAL" and necessary instruction. The models pictured in the manual are suggestions. They do not begin to exhaust the possibilities of your set. As you use your **MECCANO-MORECRAFT**, new ideas will come to you. You will gradually accumulate so much valuable knowledge of mechanics and engineering that you can develop these ideas and try your hand at inventing.



MORECRAFT BOLTLESS JOINT

The operation of the **MORECRAFT** JOINT is shown in Figs. A and B.

To attach, hold the members as shown in Fig. A with the right thumb under the slots of the connector, 1, and press the angle-member 2, down. The projecting ends of the angle-member will spring apart and enter the slots. The position of the parts for making the connection is shown more clearly in Fig. D. To disconnect, hold the parts with the right thumb under the split end of the angle-member near the connector and pull down on the connector with the left hand. The right thumb will spread the ends of the angle-member and the parts will separate. A slight twisting of the angle-member will assist in disconnecting the members. If properly adjusted, the joint is surprisingly strong and rigid. If it is not, the ends of the angle-member may have become bent. This may be corrected easily by bending the ends of the angle-member until they are in the position shown in Fig. C.

If you have any difficulty building models, if you want to ask questions about **MECCANO-MORECRAFT**, if you want to tell us about any of the discoveries that you make in connection with it, write to us! Meanwhile, happy times to you!

This was the format for Beginner and Craftsman set models

Models built with the *Beginner Size*

PARALLEL BARS
For Your Toy Playground

Parts required

PARALLEL BARS	
P-4	1
A-1	4
A-3	2
C-0	4

BAGGAGE TRUCK	
P-4	1
A-0	2
A-1	4
C-90-X	4
W-2	4
R-2	2
R-4	1
K	4

(Rubber Band—Not Supplied)

Put a rubber band several times around the end of the tongue before inserting it into the hole in the P-4.

SAND SIFTER	
P-4	1
A-0	1
A-2	2
C-135-ZR	1
C-135-ZL	1

WEATHER VANE	
P-4	1
A-0	6
A-1	3
C-90-X	4
C-135-ZR	1
C-135-ZL	1
R-4	1
W-2	2
K	3

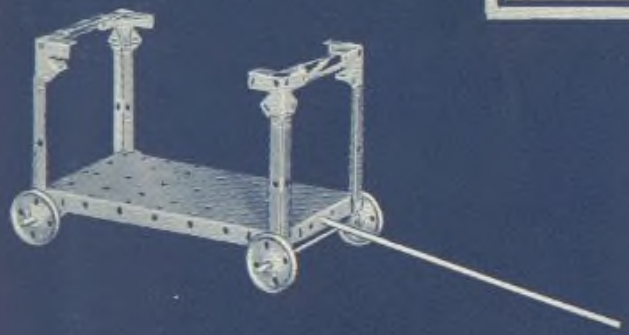
STIFF LEGGED DERRICK

The boom will swing all over your block building. The vertical rod is held top and bottom between the ends of A-0's, reverse connected to the corner of the P-4 and the top C-90-X. See the "Construction Details".

P-4	1	C-135-ZR	1
A-0	6	C-135-ZL	1
A-1	3	W-2	4
A-2	2	R-4	1
A-3	2	CH-1	1
C-0	3	K	3
C-90-X	4	AF	1

(String—Not Supplied)

WEATHER VANE
The Finger Will Point to the Direction from Which the Wind Is Blowing



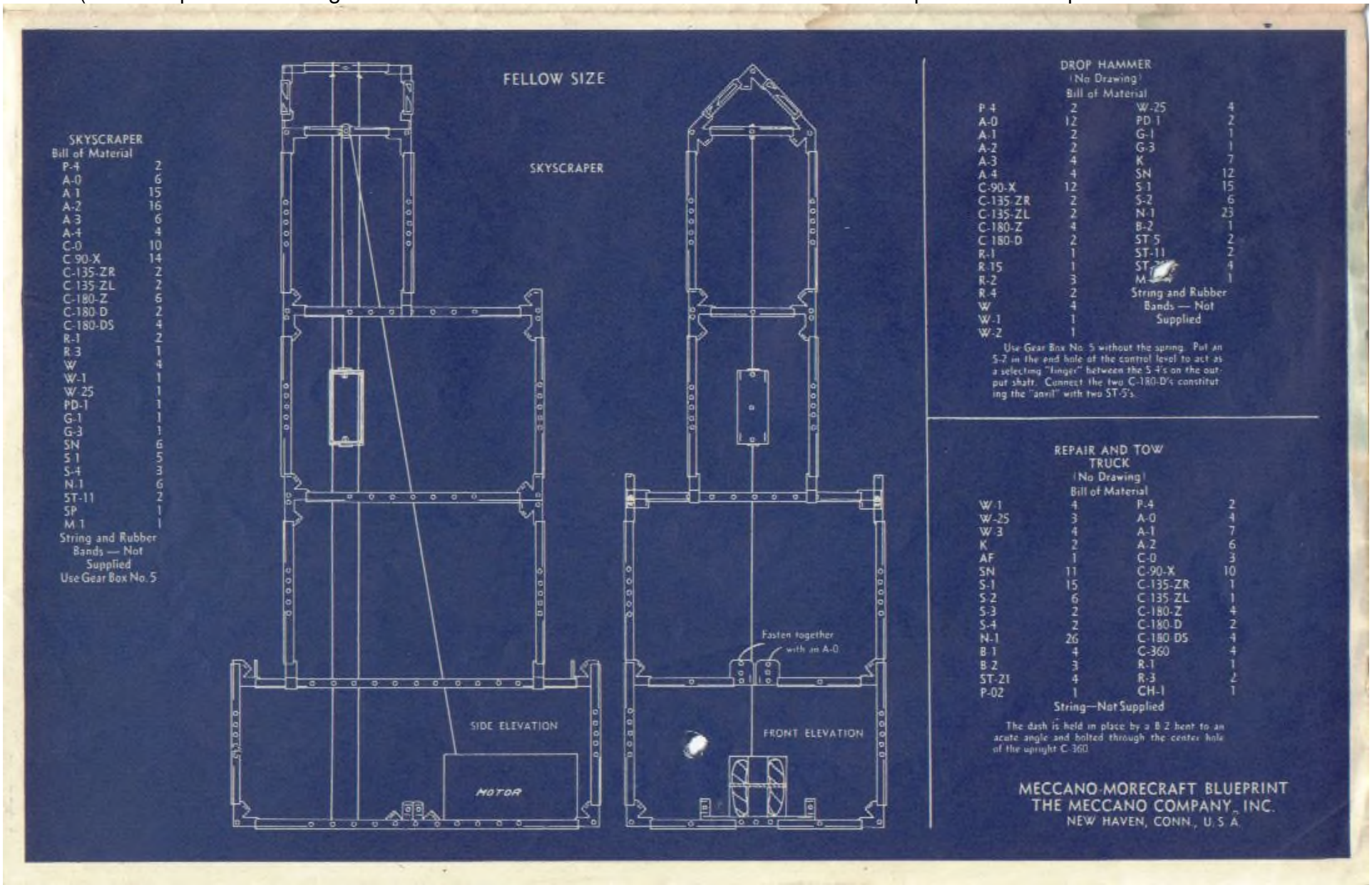
BAGGAGE TRUCK

SAND SIFTER

STIFF LEGGED DERRICK

MECCANO (AMERICA) - MECCANO MORECRAFT 5c

The rest of the sets used ‘blueprints’ to give constructional detail and parts lists with
The manual showed a picture of the model – see the next two pages for the models detailed below.
(The ‘blueprints’ were large double sided sheets each folded and divided into four quarters – one quarter is shown below



SKYSCRAPER
Bill of Material

P-4	2
A-0	6
A-1	15
A-2	16
A-3	6
A-4	4
C-0	10
C-90-X	14
C-135-ZR	2
C-135-ZL	2
C-180-Z	6
C-180-D	2
C-180-DS	4
R-1	2
R-3	1
W	4
W-1	1
W-25	1
PD-1	1
G-1	1
G-3	1
SN	6
S-1	5
S-4	3
N-1	6
ST-11	2
SP	1
M-1	1

String and Rubber Bands — Not Supplied
Use Gear Box No. 5

DROP HAMMER
(No Drawing)
Bill of Material

P-4	2	W-25	4
A-0	12	PD-1	2
A-1	2	G-1	1
A-2	2	G-3	1
A-3	4	K	7
A-4	4	SN	12
C-90-X	12	S-1	15
C-135-ZR	2	S-2	6
C-135-ZL	2	N-1	23
C-180-Z	4	B-2	1
C-180-D	2	ST-5	2
R-1	1	ST-11	2
R-15	1	ST-21	4
R-2	3	M-1	1
R-4	2		
W	4	String and Rubber Bands — Not Supplied	
W-1	1		
W-2	1		

Use Gear Box No. 5 without the spring. Put an S-2 in the end hole of the control level to act as a selecting "finger" between the S-4's on the output shaft. Connect the two C-180-D's constituting the "anvil" with two ST-5's.

REPAIR AND TOW TRUCK
(No Drawing)
Bill of Material

W-1	4	P-4	2
W-25	3	A-0	4
W-3	4	A-1	7
K	2	A-2	6
AF	1	C-0	3
SN	11	C-90-X	10
S-1	15	C-135-ZR	1
S-2	6	C-135-ZL	1
S-3	2	C-180-Z	4
S-4	2	C-180-D	2
N-1	26	C-180-DS	4
B-1	4	C-360	4
B-2	3	R-1	1
ST-21	4	R-3	2
P-02	1	CH-1	1

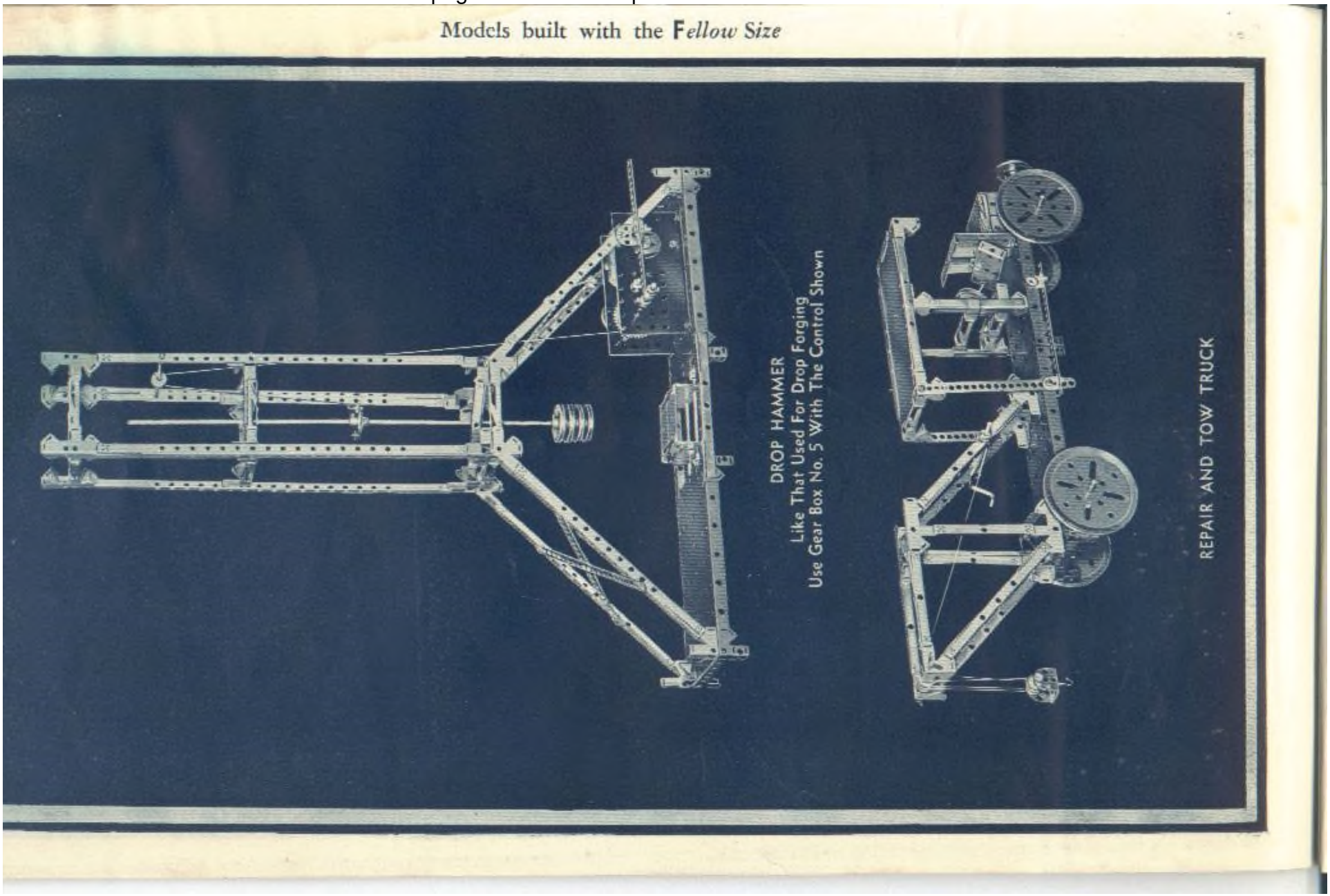
String—Not Supplied

The dash is held in place by a B-2 bent to an acute angle and bolted through the center hole of the upright C-360

MECCANO MORECRAFT BLUEPRINT
THE MECCANO COMPANY, INC.
NEW HAVEN, CONN., U.S.A.

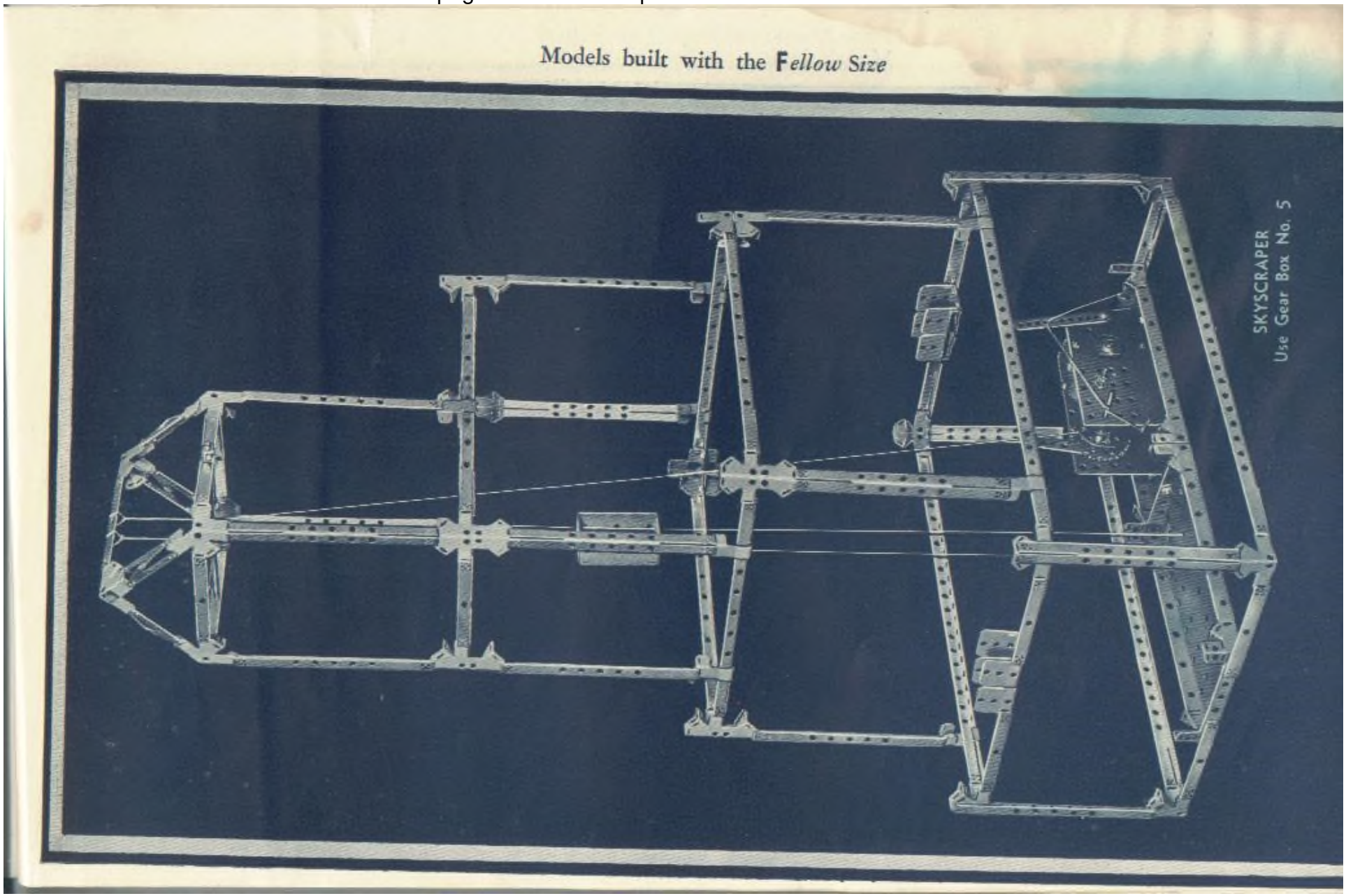
See page 5c for the 'blueprint' associated with this model

Models built with the *Fellow Size*

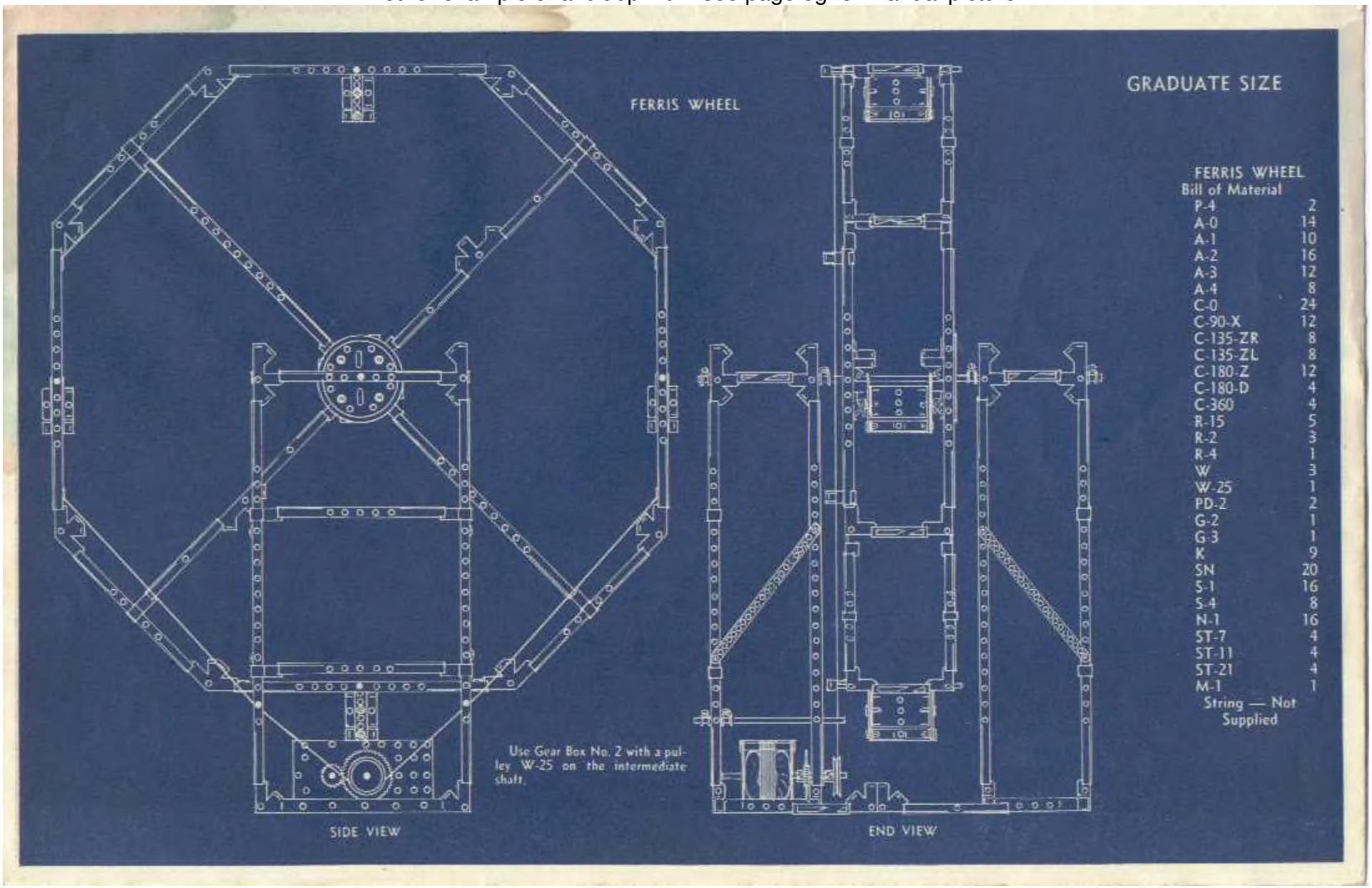


MECCANO (AMERICA) - MECCANO MORECRAFT 5e

See page 5c for the 'blueprint' associated with this model



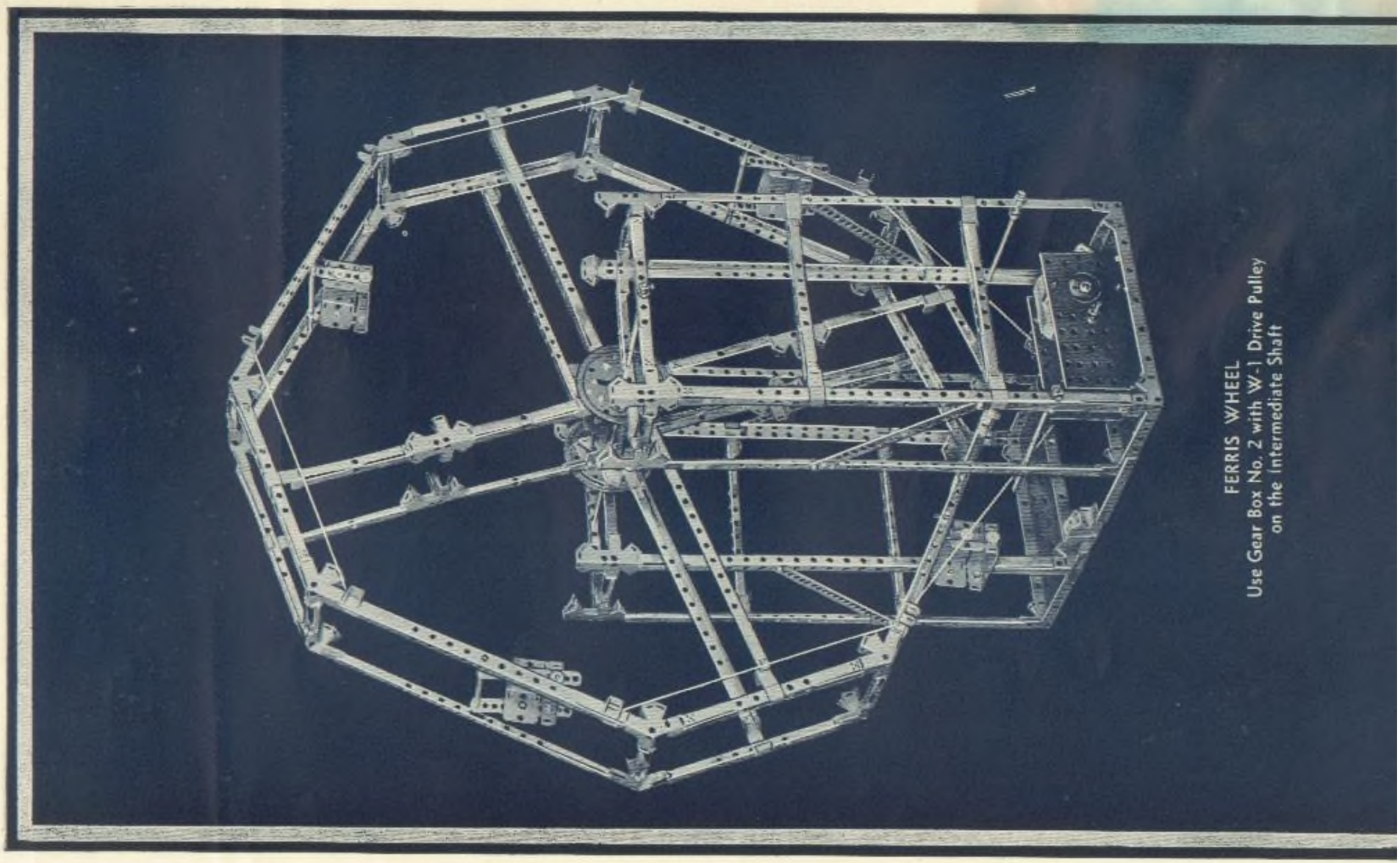
Another example of a 'blueprint' – see page 5g for manual picture



MECCANO (AMERICA) - MECCANO MORECRAFT 5g

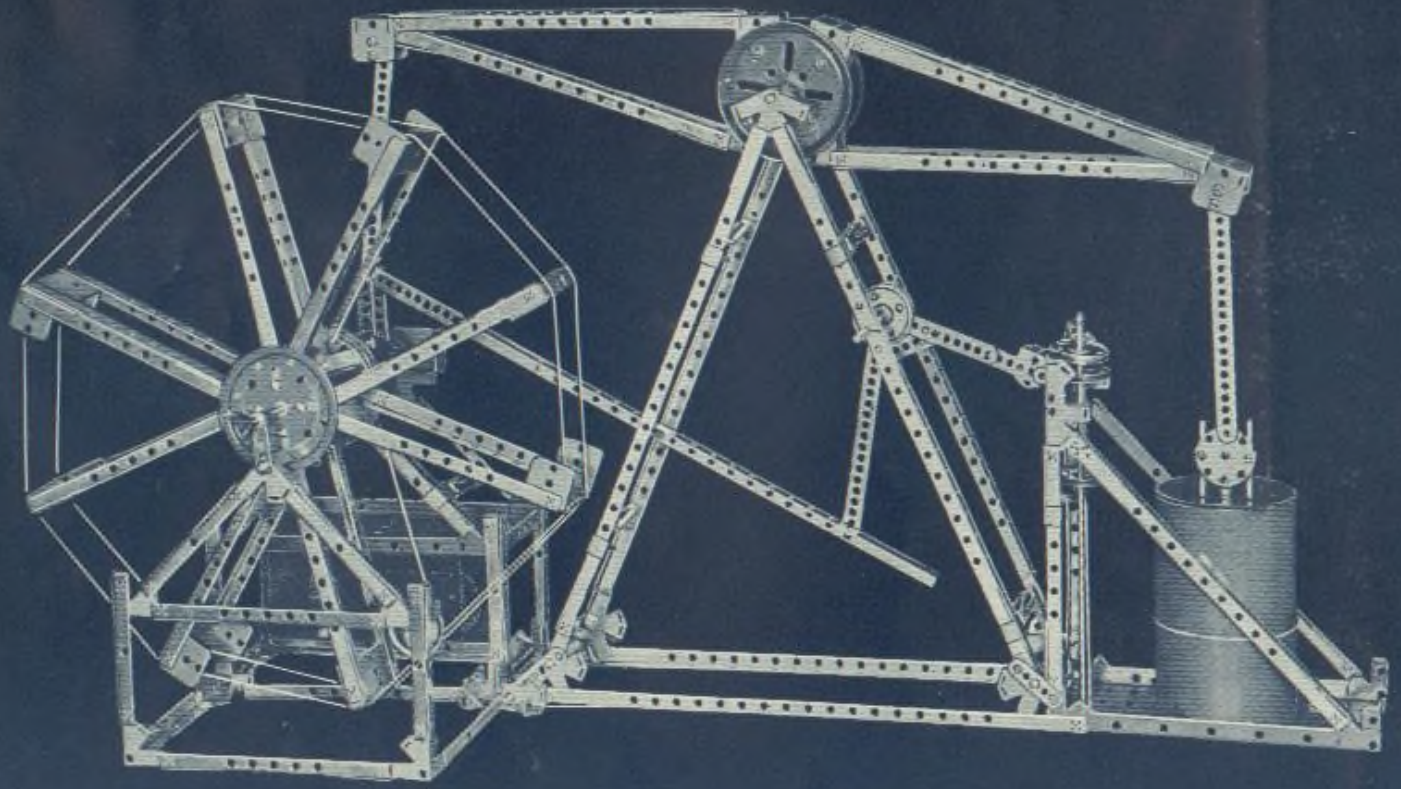
See page 5f for the 'blueprint' for this model

Models built with the *Graduate Size*



FERRIS WHEEL
Use Gear Box No. 2 with W-1 Drive Pulley
on the Intermediate Shaft

Models built with the *Graduate Size*



WALKING BEAM ENGINE
Shows Single Paddle Wheel—Use Gear Box No. 2
With W-25's in Place of the W-2's Shown

MECCANO (AMERICA) - MECCANO MORECRAFT 6a

This parts list is an 'guesstimate' complied from the parts list for each of the models shown in the manual.

Part No.	Description	Beginner	Craftsman	Designer	Designer Special	Engineer	Fellow	Graduate
A-0	Angle member, 1 ¾"	6	8	8	8	8	12	14
A-1	Angle member, 1 hole, 3 ¼"	4	9	12	12	12	20	39
A-2	Angle member, 5 hole, 5 ¼"	2	6	10	10	10	18	34
A-3	Angle member, 9 hole, 8 ¼"	2	4	6	6	6	8	12
A-4	Angle member, 17 hole, 12 ¼"						4	8
AF	Hook	1	1	1	1	1	1	1
B-1	Angle Bracket (Meccano No.12)					2	4	4
B-2	Angle Bracket (Wide Beam part ?)					2	3	3
B-3	Motor Support Bracket							
C-0	Connector, hanger & lock	4	6	8	8	8	12	32
C-90-X	Connector, 90° corner	4	6	8	8	8	14	14
C-135-ZL	Connector, 135° angle left	1	2	2	2	2	4	8
C-135-ZR	Connector, 135° angle right	1	2	2	2	2	4	8
C-180-D	Connector, double straight angle long			1	1	1	2	4
C-180-DS	Connector, double straight angle short		3	3	3	3	4	6
C-180-Z	Connector, 180° straight		2	4	4	4	6	12
C-360	Connector, boom end			2	2	2	4	6
C-G	Graduate Size Wooden Cabinet							
CH-1	Crank Axle 4 ½" shaft	1	1	1	1	1	1	1
CH-2	Crank Axle 6" shaft						1	1
CR	Eccentric							1
D ½	1" Metal Drawer							
D1	2" Metal Drawer							
G-1	12 Tooth Gear					1	1	2
G-2	18 Tooth Gear					1	1	1
G-3	36 Tooth Gear 1 ½" dia					2	2	2
K	Key	4	6	8	8	8	13	13
M-1	110VAC Induction Motor				1	1	1	1
M-2	Universal Motor							
N-1	Square Nut 8-32			8	9	20	26	48
P-4	Base Plate	1	1	1	1	1	2	2
P-02	Paper Panel, 7 x 3 ½"			2	2	2	2	2

Part No.	Description	Beginner	Craftsman	Designer	Designer Special	Engineer	Fellow	Graduate
P-11	Paper Panel, 4 ¾ x 4 ¾”			2	2	2	2	8
P-12	Paper Panel, 7 x 4 ¾”		2	2	2	2	2	6
P-13	Paper Panel, 11 x 5”							1
PD-1	Pierced Disc 1 ¼” dia 8 holes					2	2	2
PD-2	Turret Plate 2 ¾” dia 12 holes/4 slots			1	1	2	2	2
PT-11	Paper Panel, triangular, 4 ½ x 4 ½”							
R-0	2 1/8” Axle Rod	1	1	1	1	1	1	4
R-1	2 7/8” Axle Rod			1	1	2	2	2
R-15	4” Axle Rod			1	1	1	2	5
R-2	5” Axle Rod	2	3	3	3	3	3	3
R-3	6 ½” Axle Rod			2	2	2	2	4
R-4	8 ½” Axle Rod	1	1	2	2	2	2	3
S-1	Screw, 8-32 x ¼”			5	8	12	15	31
S-2	Screw, 8-32 x 7/8”			4	4	4	6	6
S-3	Screw, 8-32 x 1 3/8”?					2	2	4
S-4	Collar			2	2	5	5	8
SN	Snap Rivet		4	4	5	5	16	20
SP	Spring					1	1	1
ST-5	5 Hole Strip Member					2	4	4
ST-7	7 Hole Strip Member			2	2	2	4	4
ST-11	11 Hole Strip Member					2	2	4
ST-21	21 Hole Strip Member					2	4	4
W	Washer					4	6	6
W-0	Motor Pulley				1	1	1	1
W-1	Sheave Pulley ½”		1	1	1	1	4	4
W-2	Pulley 1 ¼” dia 4 holes	4	4	4	4	4	4	4
W-3	3” Pulley (Meccano No.19b)						4	4
W-25	Pulley 1 ¼” dia 4 holes				1	1	4	4
WG	Worm Gear					1	1	1
	Wrench			1	1	1	1	1
	Screwdriver			1	1	1	1	1
	Rivet Extractor		1	1	1	1	1	1

MECCANO (AMERICA) – MECCANO MORECRAFT 7a

box lids (probably interior box lids for metal or cardboard trays) 2 of size 8 x 12 1/8 x 3/4" (image slightly cropped lengthwise)